

**Ten Pack Carton Separable Into Multiple Pack Retail Units**

**Background of the Invention**

[001] The present invention relates to a ten pack carton, and more particularly to a ten pack carton separable for retail purposes into multiple pack units of less than ten packs.

[002] In the manufacture and packaging of cigarette packs, individual packs of cigarettes are often packaged in cigarette cartons that hold two rows of five packs each for a total of ten packs per carton. Packaging machinery has long been available for producing ten pack cartons, and other machinery is in place for applying revenue stamps to cigarette packs in such cartons. However, with the rising cost of a cigarette pack, primary due to the even increasing taxes applied by government agencies, multiple pack sale of less than the traditional ten pack carton is becoming rapidly popular.

[003] Additionally, cigarette pack sales are often sold under promotional marketing programs where the sale of several packs is accompanied by a free pack of cigarettes. Buy one, get one free and buy two, get one free are common promotional programs. Under such programs, two and three pack retail units are individually sold. Similarly in buy three, get two free promotions, five packs of cigarettes are packaged as a single retail unit.

[004] It is common practice to ship and store cigarette packs in cartons. Conventional or standard cigarette cartons ordinarily hold ten packs, each pack containing about twenty cigarettes. Such standard cartons completely encase the

cigarette packs and are provided with glued flaps. Examples of cartons for ten packs of cigarettes are provided in U.S. Pat. Nos. 3,752,308 to Begemann; 4,738,359 to Phillips, Jr., and 4,903,844 to Oglesby.

[005] Individual jurisdictions require the application of a tax stamp to each pack of cigarettes sold in the respective jurisdiction. Typically, the distributor or jobber in the jurisdiction receives the cartons from the manufacturer, unseals the flap of carton which is sealed with a fugitive adhesive, applies the tax stamp to each pack of cigarettes, and then recloses and reseals the carton. In order to minimize the time, labor and expense associated with tax stamping of the packs within the carton, various automated tax marking or stamping machines have been developed. Such tax marking machines automatically print or otherwise affix tax stamps to packs within the carton. Accordingly, the dimensions and construction of the standard cigarette carton have been established by the tax stamping machinery customarily employed by the distributors, wholesalers and jobbers who tax mark the cigarette packs prior to retail sale.

[006] A manufacturer desiring to provide cigarette packs in non-standard size or shape cartons is forced to pay to have the individual packs hand tax stamped. Alternatively, the manufacturer can package cigarette packs in standard cartons for tax stamping and handling, and then manually load the tax stamped packs into non-standard size or shape cartons. However, a manual method for providing non-standard size or shape cartons of packaged cigarettes is time consuming, laborious and expensive.

[007] Occasionally, manufacturers desire to market cartons containing five packs of cigarettes. Such cartons are similar in design to the standard cartons, but only contain

one row of five packs. In particular, five pack cartons having a configuration comparable to standard cigarette cartons have had a top flap configuration. The top flap has required that the packs of such cartons be tax stamped by hand or that the tax stamped packs be manually loaded in the carton.

[008] It would be desirable to provide a procedure for efficiently and effectively packaging cigarettes in separable and divisible cartons which in turn are provided from standard size cartons of conventional shape or configuration. In particular, it would be desirable for the cigarette manufacturer to efficiently and effectively provide cigarette packs contained within standard cartons for tax stamping using conventional automatic or semi-automatic tax stamping machinery, which standard cartons have the capability of being separated into multi-pack retail units of less than ten cigarette packs.

### **Summary of the Invention**

[009] Accordingly, one of the objects of the present invention is a traditional ten pack carton, but with predetermined lines of separation whereby the carton is separable into multi-pack units for retail sales of two, three, four and five cigarette packs.

[0010] Another object of the present invention is a ten pack carton which is handled in a traditional manner during filling of the carton with packs of cigarettes and applying revenue stamps to the packs while in the carton, but which is separable into multi-pack units of less than ten packs for retail sale.

[0011] In accordance with the present invention, a ten pack carton blank is constructed and arranged for packaging ten packs in two rows with five packs in each row in side-to-side abutting relationship with one another. The carton includes perforated score lines for separating an assembled ten pack carton into smaller multi-

pack retail units. Each multi-pack retail unit has at least one open end exposing the packs therein.

[0012] In one embodiment of the present invention the perforated score lines are arranged for separating an assembled ten pack carton into five, two pack retail units. In another embodiment of the invention the perforated score lines are arranged for separating an assembled ten pack carton into two, five pack retail units. In an alternate embodiment the perforated score lines are arranged for separating an assembled ten pack carton into three, three pack retail units and one single pack. In still another embodiment of the present invention, the perforated score lines are arranged for separating an assembled ten pack carton into two, four pack retail units and one, two pack retail unit.

[0013] The perforated score lines of still another ten pack carton blank are arranged for separating an assembled ten pack carton into two three pack retail units and two, two pack retail units.

#### **Brief Description of the Drawings**

[0014] Novel features and advantages of the present invention in addition to those noted above will become apparent to persons of ordinary skill in the art from a reading of the following detailed description in conjunction with the accompanying drawings wherein similar reference characters refer to similar parts and in which:

[0015] Figure 1 is a top plan view of a ten pack carton blank with score lines that enable the ten pack carton to be separated into five, two pack retail units, according to the present invention;

[0016] Figure 2 is a perspective view illustrating the ten pack carton produced from the carton blank of Figure 1;

[0017] Figure 3 is a perspective view of an end two pack retail unit separated from the carton of Figure 2;

[0018] Figure 4 is a top plan view of another ten pack carton blank with score lines that enable the ten pack carton to be separated into two, five pack retail units, according to the present invention;

[0019] Figure 5 is a perspective view of the ten pack carton produced from the carton blank of Figure 4;

[0020] Figure 6 is a perspective view of one of two five pack retail units produced from the carton of Figure 5;

[0021] Figure 7 is a top plan view of another ten pack carton blank with score lines that enable the ten pack carton to be separated into three, three pack retail units and one single pack, according to the present invention;

[0022] Figure 8 is a perspective view illustrating the ten pack carton produced from the carton blank of Figure 7;

[0023] Figure 9 is a perspective view of one of three, three pack retail units produced from the carton of Figure 8;

[0024] Figure 10 is a top plan view of still another ten pack carton blank with score lines that enable the ten pack carton to be separated into multiple pack retail units such as the illustrated two, four pack retail units and one two pack retail unit, according to the present invention;

[0025] Figure 11 is a perspective view illustrating the ten pack carton produced from the carton blank of Figure 10;

[0026] Figure 12 is a perspective view of one of two, four pack retail units separated from the carton of Figure 11;

[0027] Figure 13 is a perspective view of the two pack retail unit separated from the carton of Figure 11;

[0028] Figure 14 is a perspective view of a ten pack carton blank with score lines that enable the ten pack carton to be separated into two, three pack retail units and two, two pack retail units according to the present invention;

[0029] Figure 15 is a perspective view illustrating the ten pack carton produced from the carton blank of Figure 14; and

[0030] Figure 16 is a perspective view of one of two, two pack retail units separated from the carton of Figure 15 with one of the two, three pack retail units the same as shown in Figure 9.

### **Detailed Description of the Invention**

[0031] Referring in more particularity to the drawings, Figure 1 illustrates a carton blank 10 fabricated from paperboard or similar material. Blank 10 includes a bottom wall 12 together with an upstanding front wall 14 and an upstanding rear wall 16 generally parallel to front wall 14 in the assembled condition of the carton blank. A top wall 18 extends from the rear wall 16 and a top closure flap 20 extends from the front wall 14. The front wall 14 includes end walls 22, 24 at the sides thereof while the rear wall 16 includes end closure flaps 26, 28. Bottom flaps 30, 32 extend from the sides of the bottom wall 12.

[0032] In assembling the carton blank 10 the walls and flaps are folded along fold lines between the respective walls and flaps of the carton blank. Initially the bottom flaps 30, 32 are folded inwardly and the front and rear walls 14, 16 are upwardly folded. End walls 22, 24 are folded and secured in place by the end closure flaps 26, 28. A glue strip 34 on each of the end closure flaps is used to secure these flaps to the end walls 26, 28. After the top wall 18 is folded over to close the carton blank, the top closure flap 20 is secured to the top wall 18. Adhesive 36 may be used to secure the top closure flap 20 to the top wall 18.

[0033] A carton blank assembled in this manner is shown in Figure 2. The carton blank 10 includes perforated score lines 40 for separating an assembled ten pack carton into smaller multi-pack retail units. Fundamentally, the carton blank 10 is used for packaging ten packs 42 into two rows with five packs in each row in side-to-side abutting relationship with one another. The perforated score lines 40 are basically arranged for separating an assembled ten pack carton blank 10 into five, two pack retail units 44. Each of the retail units 44 has at least one open end exposing the packs 42 therein. The end units of the carton have a single open end, while the three interior retail units 44 are open at opposite ends. As shown in Figures 1 and 2, the score lines 40 comprise four parallel lines that extend across the bottom, front, rear and top walls of the carton blank 10 as well as the top closure flap 20. Adhesive dots 38 are placed inside the carton to releasably secure the packs in place and thereby prevent the packs from falling out of each two pack retail unit.

[0034] In actual use, cartons are assembled from blank 10 and packs 42 are loaded into the assembled carton after which revenue stamps may be applied and the carton

then closed. At the retail location, the operator simply separates the carton along the score lines 40 to thereby produce five, two pack retail units 44.

[0035] Figure 4 illustrates another carton blank 10A having the same layout as blank 10 and similar portions are identified by similar reference characters. The major difference, however, is the arrangement of score lines 40A which enable separation of the assembled ten pack carton shown in Figure 5 into two, five pack retail units 44.

[0036] In actual use, cartons are assembled from blank 10A and packs 42 are loaded into the assembled carton after which revenue stamps may be applied and the carton then closed. At the retail location, the operator simply separates the carton along the score lines 40A to produce two, five pack retail units 46. Adhesive dots 38 prevent the exposed packs of each five pack retail unit from falling out.

[0037] Figure 7 illustrates another carton blank 10B having the same layout as blank 10 and similar portions are identified by similar reference characters. The major difference, however, is the arrangement of score lines 40B which enable separation of the assembled ten pack carton shown in Figure 8 into three, three pack retail units 48 and one single pack 42.

[0038] In actual use, cartons are assembled from blank 10B and packs 42 are loaded into the assembled carton after which revenue stamps may be applied and the carton then closed. At the retail location, the operator simply separates the carton along the score lines 40B to produce three, three pack retail units 48 and one single pack 42.

[0039] Figure 10 illustrates another carton blank 10C having the same layout as blank 10 and similar portions are identified by similar reference characters. The major difference, however, is the arrangement of score lines 40C which enable separation of



the assembled ten pack carton shown in Figure 11 into two, four pack retail units 52 and one, two pack retail units 44.

[0040] In actual use, cartons are assembled from blank 10C as described above, and at the retail location, the operator simply separates the carton along the score lines 40C to thereby product two, four pack retail units 52 and one, two pack retail unit 44.

[0041] Figure 14 illustrates still another carton blank 10D having the same layout as blank 10 and similar portions are identified by similar reference characters. The major difference, however, is the arrangement of score lines 40D which enable separation of the assembled ten pack carton shown in Figure 15 into two, three pack retail units 48 and two, two pack retail units 44.

[0042] In actual use, cartons are assembled from blank 10D as described above, and at the retail location, the operator simply separates the carton along the score lines 40D to thereby product two, three pack retail units 48 and two, two pack retail unit 44.